

Baltinglass - Automatic Flood Alert System (**AFAS**):

Rev001-A

Introduction:

The flood that occurred in Baltinglass, on Saturday morning the 16th January 2010 demonstrated that the town was missing two key pieces of infrastructure. The first one is obvious, and is that the Town is lacking a Hood prevention scheme of any description. The second piece of infrastructure is an "Automated Hood Alert System" (AFAS). This is an initial discussion document to look at the possible benefits and features of an AFAS for Baltinglass.

Summary:

AFAS would be located both in and above the river Slaney, initially in one location in Baltinglass Town. This would typically reside at the main bridge or at a better location. The system would automatically communicate information about the level of water in the river. It would also record key data for analysis. This data would allow the people of Baltinglass to be informed if the river level was rising, or in a worst case, whether a flood was a real threat. A lot of other features are also possible during the project design and development stage.

Benefits:

AFAS is all about benefits. These are the main advantages of such a flood alert system – Rev001-A

- 01 Early warning for all people concerned - whether they are home or away,
- 02 AFAS gives reassurance that the river is normal or not flooding.
- 03 Save lives- A sudden flood can result in the loss of life.
- 04 Allow people to prepare for and prevent the flooding of their homes and motor vehicles.
- 05 Early mobilisation of emergency response or local voluntary groups
- 06 AFAS can be a factor in calculating a flood insurance premium.
- 07 An early warning, giving time to prepare for local flooding.
- 08 Regular Text alerts giving up to date information on the river flow.
- 09 AFAS could be implemented in a short period (less than six months)

Features:

AFAS can be very basic and functional at first. With smart design it can be expanded to include additional features.

Features Include:

- 01 Communicate to the people of Baltinglass that possible or existing flood conditions exist,
- 02 Alert people by SMS Text messages, Pre recorded phone call and siren alarm cycles.
- 03 Water levels, both current and trend (whether the level is rising or falling)
- 04 Web Cam - view the river on your phone or on your computer.
- 05 Graphical alerts - view the river level in a live graphical representation.
- 06 Data Analysis. Based on historical data, AFAS gives a prediction and or time for flooding.
- 07 Backup system. Redundancy built in at the design stage.
- 08 Expand AFAS - combine data from both upstream and downstream.
- 09 Put AFAS in every flood affected area around Baltinglass.
- 10 What's available to buy commercially and what features are available.
- 11 Test runs or flood drills.

AFAS Implementation:

A project such as AFAS requires local support and state funding. A lot of the design could be done through a series of locally constructed prototypes. Communication equipment would be off the shelf and local knowledge and skills could be used in its integration in to AFAS. Such a project would also have ongoing maintenance and communication supplier costs.

Further revisions of this document will be released based on initial response and feedback.